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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/978,602	10/16/2001	Howard L. Vandersall	41482/25424	5279

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EXAMINER

TOOMER, CEPHIA D

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 06/18/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,602

Applicant(s)

VANDERSALL ET AL.

Examiner

Cephia D. Toomer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/14/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-14, 16-33, 35-55, 57-72 and 74-79 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 79 is/are allowed.
- 6) ☐ Claim(s) 1-6, 8-14, 16-18, 22-24, 26-33, 35-37, 41-47, 49-55, 57, 58, 62-64, 66-72, 74 and 75 is/are rejected.
- 7) ☐ Claim(s) 7, 19-21, 25, 38-40, 48, 59-61, 65 and 76-78 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

This Office action is in response to the amendment filed March 14, 2003 in which claims 1-8, 10-14, 16-33, 35-55, 57-67, 69-72 and 74-79 were amended and claims 15, 34, 56 and 73 were canceled.

1. Claims 1, 3, 5, 6, 9, 13, 14, 16-18, 22, 41, 42, 44, 46, 47, 53-55, 57 and 62 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-48 of copending Application No. 09/978,401 for the reasons of record.

Applicant argues that the present invention does not encompass that of 09/978401 because '401 does not require the corrosion inhibitor. However, since the present invention contains all of the components of 09/978401 and the claim language of '401 is "comprising", '401 is open to the inclusion of a corrosion inhibitor. Therefore, the rejection is proper.

2. The rejection of the claims under 35 USC 112 is withdrawn in view of the amendment to the claims and Applicant's arguments.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-6, 8-14, 16-18, 22-24, 26-33, 35-37, 41-47, 49-55, 57-58, 62-64, 66-72, and 74-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson (US 3,730,890) in view of Crouch (US 6,019,176), Strickland (US 4,822,524) and Achtmann (US 5,882,541).

Nelson teaches a fire retardant composition comprising attapulgite clay, liquid ammonium polyphosphate, corrosion inhibitors and coloring agents (see abstract; col. 2, lines 17-26). The composition is prepared as a concentrate and diluted with water to produce the required fire retardant. The composition may be applied by aerial means (see abstract; col. 1, line 69 through col. 2, lines 1-5). The corrosion inhibitor is preferably used in a amount from about 0.05 to about 0.5 part by wt.; however, Nelson teaches that depending upon the specific inhibitor the amount may vary (see col. 2, lines 43-51). Nelson teaches the limitations of the claims other than the differences that are discussed below.

In the first aspect, Nelson differs from the claims in that he does not specifically teach the particle size diameter of the biopolymer. However, Achtmann teaches this difference in a fire retardant composition. Achtmann teaches using natural gums such as xanthan gum having a particle size of about 50 to about 250 mesh (approximately 49-300 microns) (see col. 6, lines 30-63).

It would have been obvious to one of ordinary skill in the art to have used a biopolymer having a particle size of less than 100 microns because Achtmann teaches that the biopolymers stiffen the fire retardant composition after it is mixed with water (see col. 6, lines 17-29).

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In the second aspect, Nelson differs from the claims in that he does not specifically teach the claimed corrosion inhibitor (claims 2, 24, 43). However, Crouch teaches this difference.

Crouch teaches that the corrosion inhibitors taught by Nelson (sodium silicofluoride) is an art recognized equivalent of the claimed azole compounds (see col. 3, lines 18-25).

It would have been obvious to one of ordinary skill in the art to have selected the claimed azole corrosion inhibitors because Crouch teaches that they are art recognized equivalents of the corrosion inhibitor taught by Nelson, sodium silicofluoride.

In the third aspect, Nelson and Crouch differ from the claims in that they do not specifically teach the corrosivity of the corrosion inhibitors (claims 4, 8, 22, 27, 28, 29, 41, 45, 49, and 62). However, no unobviousness is seen in this difference because Nelson and Crouch teach that the corrosion inhibitor is present in the composition in a range that is encompassed by the disclosed range. Therefore, it would be reasonable to expect that the corrosivity of the corrosion inhibitors would be within the claimed corrosivity range.

Nelson and Crouch fail to teach that the composition contains xanthan as the biopolymer. However, Strickland teaches that xanthan is added to fire-retardant compositions (see abstract).

It would have been obvious to one of ordinary skill in the art to have included xanthan in the fire retardant composition because Strickland teaches

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that xanthan gum is included in these composition to improve the stability, corrosivity or adhesion of the composition.

Applicant argues that the prior art fails to teach or suggest the particle size for the biopolymer. Applicant argues that unexpected results are obtained with the use of biopolymers having the claimed particle size.

Achtmann teaches using xanthan gum wherein the particles size of the gum may be less than 100 microns. Applicant's data have been considered and are not deemed to constitute unexpected results. Applicant is comparing xanthan gums that are not alike in properties. Some of the gums are coated, uncoated, dispersible, etc. A better comparison would be gums having the same properties but different particle sizes.

5. Claims 1-6, 8-14, 16-18, 22-24, 26-29, 41-47, 49-55, 57-58, 62-64, 66-72 and 74-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent 693304 in view of Strickland.

EP teaches a fire retardant composition for aerial application comprising color agents, ammonium polyphosphate, attapulgite clay, stabilizers and corrosion inhibitors, such as mercaptobenzothiazole and dimercaptothiadiazone (see page 2, lines 33-34, 38, 42-58; Table F), wherein the azole corrosion inhibitors are present in the composition in a total amount of 1.02% (dry conc), 0.48% (liq. Conc.) and 0.11% (final mix). The dry concentrate is diluted with water to obtain the final composition (see page 3, lines 27-30, 42-43).

EP teaches the limitations of the claims other than that it does not specifically teach the corrosivity of the corrosion inhibitors (claims 4, 8, 22, 27, 28, 29, 41, 45, 49, and 62). However, no unobviousness is seen in this difference because EP teaches that the corrosion inhibitor is present in the composition in a range that is encompassed by the disclosed range. Therefore, it would be reasonable to expect that the corrosivity of the corrosion inhibitors would be within the claimed corrosivity range.

EP fail to teach that the composition contains xanthan as the biopolymer. However, Strickland teaches that xanthan is added to fire-retardant compositions (see abstract).

It would have been obvious to one of ordinary skill in the art to have included xanthan in the fire retardant composition because Strickland teaches that xanthan gum is included in these composition to improve the stability, corrosivity or adhesion of the composition.

Claim 79 is allowable because the prior art fails to teach or suggest a method of inhibiting corrosion on a corrodible material comprising contacting the material with xanthan and ferric pyrophosphate.

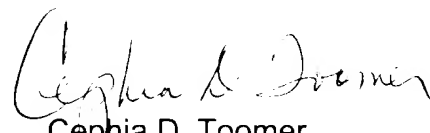
6. Claims 7, 25, 38-40, 48, 59-61, 65 and 76-78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art fails to teach using a water-soluble and water-insoluble corrosion inhibitor, and prior art fails to teach the claimed iron containing compounds as corrosion inhibitors.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cephia D. Toomer whose telephone number is 703-308-2509. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Cephia D. Toomer
Primary Examiner
Art Unit 1714

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June 16, 2003